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Application No.: 10/072,080

IN THE CLAIMS

1.   (Currently Amended)   A spread spectrum communication system comprising:

means for producing a reference signal;

means for producing a message signal having message data;

means for combining the reference signal and the message signal as a combined signal;

means for transmitting the combined signal as a combined spread spectrum signal;

means for receiving the combined spread spectrum signal;

means, including a plurality of detector means, for detecting the reference signal within the received combined spread spectrum signal; and

means for recovering the message data using information from the detected reference signal by generating a local reference signal and synchronizing the local reference signal with the detected reference signal, said means demodulating each of a plurality of message data signals.

2.   (Previously Presented)   The system of claim 1 further comprising:

means for recovering a carrier signal from the combined spread spectrum signal using the local reference signal; and

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wherein the message data recovering means uses the recovered carrier signal to recover the message data.

3.   (Previously Presented)   The system of claim 1 wherein the combined spread spectrum signal is in a code division multiple access format.

4.   (Previously Presented)   The system of claim 1 wherein a base station transmits the combined spread spectrum signal and a mobile station receives the combined spread spectrum signal.

5.   (Currently Amended)   A method for use in a spread spectrum communication system, the method comprising:

producing a reference signal;

producing a message signal having message data;

combining the reference signal and the message signal as a combined signal;

transmitting the combined signal as a combined spread spectrum signal;

receiving the combined spread spectrum signal;

generating a local reference signal at a second unit;

synchronizing the local reference signal with a detected reference signal at the second unit;

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[detecting] using detector means and synchronization means to detect the reference signal within the received combined spread spectrum signal;

synchronizing the local reference signal with the detected reference signal; and

recovering the message data of the message signal using information from the detected reference signal, thereby demodulating the message signal.

6.   (Previously Presented)   The method of claim 5 further comprising:

recovering a carrier signal from the combined spread spectrum signal; and

wherein the step of recovering the message data uses the recovered carrier signal to recover the message data.

7.   (Previously Presented)   The method of claim 5 wherein the combined spread spectrum signal is in a code division multiple access format.

8.   (Previously Presented)   The method of claim 5 wherein a base station transmits the combined spread spectrum signal and a mobile station receives the combined spread spectrum signal.

9. (Currently Amended) A spread spectrum communication system comprising:

means for producing a reference signal;

means for producing a message signal having message data;

means for combining the reference signal and the message signal as a combined signal;

means for transmitting the combined signal as a combined spread spectrum signal;

means for receiving a carrier signal of the combined signal using the reference signal; and

means for recovering the message data using information from the [recovered] carrier signal, said means for recovering the message data including means for generating a local reference signal at a second unit and means to synchronize the local reference signal with the detected reference signal to produce a recovered carrier signal.

10. (Previously Presented) The system of claim 9 wherein the combined spread spectrum signal is in a code division multiple access format.

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11. (Previously Presented) The system of claim 9 wherein a base station transmits the combined spread spectrum signal and a mobile station receives the combined spread spectrum signal.

12. (Currently Amended) A method for use in a spread spectrum communication system, the method comprising:

producing a reference signal;

producing a message signal having message data;

combining the reference signal and the message signal as a combined signal;

transmitting the combined signal as a combined spread spectrum signal;

receiving the combined spread spectrum signal;

recovering a carrier signal of the combined spread spectrum signal using the reference signal by generating a local reference signal and synchronizing the local reference signal with the detected reference signal; and

recovering the message data using the recovered carrier signal, thereby demodulating the message signal.

13. (Previously Presented) The method of claim 12 wherein the combined spread spectrum signal is in a code division multiple access format.

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14. (Previously Presented) The method of claim 12 wherein a base station transmits the combined spread spectrum signal and a mobile station receives the combined spread spectrum signal.

15. (New) The communication system of claim 1, wherein:

the means for generating the local reference signal relays the detected reference signal, the local reference signal transmitted as part of the combined spread spectrum signal; and

a second unit spread-spectrum processes message data with the local reference signal, and combines the spread-spectrum-processed message data with the local reference signal as a CDMA signal.

16. (New) The communication system of claim 1, wherein:

the means for generating the local reference signal uses the detected reference signal to set the timing for the local reference signal, the local reference signal transmitted as part of the combined spread spectrum signal;

a second unit spread-spectrum processes the message data with the local reference signal, and combines the spread-spectrum-processed message data with the local reference signal as a CDMA signal; and

the second unit transmits said CDMA signal over a communications channel.

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17. (New) The method of claim 5, further comprising:

using the generation of the local reference signal at the second unit to relay the detected reference signal, and transmitting the local reference signal from the second unit;

processing the local message data with the local reference signal, and combining the spread-spectrum-processed local message data with the local-reference signal as a local-CDMA signal; and

transmitting the local-CDMA signal over a communications channel.

18. (New) The method of claim 5, further comprising:

generating the local reference signal at the second unit using the detected reference signal to set the timing for the local reference signal;

processing the local message data with the local reference signal, and combines the spread-spectrum-processed local message data with the local reference signal as a CDMA signal; and

transmitting the CDMA signal over a communications channel.

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19. (New) The communication system of claim 9, wherein:

the means for generating the local reference signal at the second unit relays the detected reference signal, the local reference signal transmitted from the second unit;

the second unit spread-spectrum processes message data with the local reference signal, and combines the spread-spectrum-processed message data with the local reference signal as a CDMA signal; and

the second unit transmits said CDMA signal over a communications channel.

20. (New) The method of claim 12, further comprising:

using the generation of the local reference signal to relay the detected reference signal, and transmitting the local reference signal;

processing the local message data with the local reference signal, and combining the spread-spectrum-processed local message data with the local-reference signal as a local-CDMA signal; and

transmitting the local-CDMA signal over a communications channel.